Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





WATER SUPPLY OUTLOOK FOR IDAHO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE, and

IDAHO STATE RECLAMATION ENGINEER

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80521
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

ENT O

CONSERVATION OF WATER BEGINS WITH THE

SNOW SURVEY

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

WATER SUPPLY OUTLOOK FOR IDAHO

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Released by

LEE T. MORGAN

STATE CONSERVATIONIST SOIL CONSERVATION SERVICE BOISE, IDAHO

In Cooperation with

R. KEITH HIGGINSON

STATE RECLAMATION ENGINEER
DEPARTMENT OF RECLAMATION
BOISE, IDAHO

Report prepared by

MORLAN W. NELSON, Snow Survey Supervisor and

J. ALDEN WILSON, Assistant Snow Survey Supervisor

SOIL CONSERVATION SERVICE SNOW SURVEY SECTION P.O. BOX 38, BOISE, IDAHO 83707

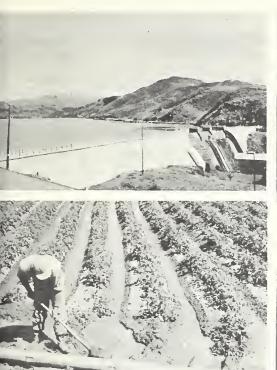


TABLE of CONTENTS

WATER SUPPLY OUTLOOK FOR IDAHO RESERVOIR STORAGE RESERVOIR STORAGE MAP. PROSPECTIVE STREAMFLOW MAP STREAMFLOW FORECASTS. VALLEY PRECIPITATION	1 3 4 5 6 9
APPENDIX	
UPPER COLUMBIA and LOWER SNAKE RIVER BASINS - Snow Survey Data for Pend Oreille-Priest, Spokane, Palouse, Clearwater, Salmon and Lemhi River Watersheds	í
Soil Moisture Data for Spokane, Clearwater, Salmon and Lemhi River Watersheds	iii
MIDDLE SNAKE RIVER BASIN - NORTHSIDE - Snow Survey Data for Little Lost, Big Lost, Little Wood, Big Wood, Boise, Payette and Weiser River Watersheds	iv
Soil Moisture Data for Little Lost, Little Wood, Big Wood and Boise River Watersheds	v
MIDDLE SNAKE RIVER BASIN - SOUTHSIDE - Snow Survey Data for Raft River, Goose Creek, Salmon Falls	
Creek, Bruneau and Owyhee River Watersheds Soil Moisture Data for Raft River, Goose Creek, Salmon Falls	vi
Creek, Bruneau and Owyhee River Watersheds	vii
UPPER SNAKE RIVER BASIN - Snow Survey Data for Camas-Beaver Creeks, Henrys Fork River, Teton River	viii
Soil Moisture Data for Henrys Fork River, Teton River, and Portneuf River Watersheds	viii
GREAT BASIN - Snow Survey Data for Bear River, Montpelier Creek	
and Mink Creek Watersheds	ix
Creek Watersheds	ix



WATER SUPPLY OUTLOOK for IDAHO







GENERAL SUMMARY FOR MAY 1, 1969

The water supply outlook for Idaho is excellent. Several rivers still have serious high water potential.

The snow cover on the Big and Little Lost, the Big and Little Wood Rivers and on the Camas-Beaver Creek drainage is still extremely heavy. The low elevation snow cover on these drainages melted during April and produced extremely high flows, but a cool spell prevented a continuation of the snowmelt. This highly desirable change in weather has lowered the flood hazard but it has not been eliminated.

Precipitation throughout the southern half of Idaho was well below normal during the month. Snowfall that usually occurs at high elevations during April did not materialize. In northern Idaho, from the Clearwater to the Canadian border, precipitation was above or near average. Temperatures around the state were generally above normal.

Soils throughout Idaho lost moisture at the lower elevations but remained saturated in the mountainous areas. The excellent soil moisture in the valleys has created unusually heavy grass cover and soil moisture conditions in general, even at these elevations, are still slightly above normal.

Reservoir storage in general is excellent.

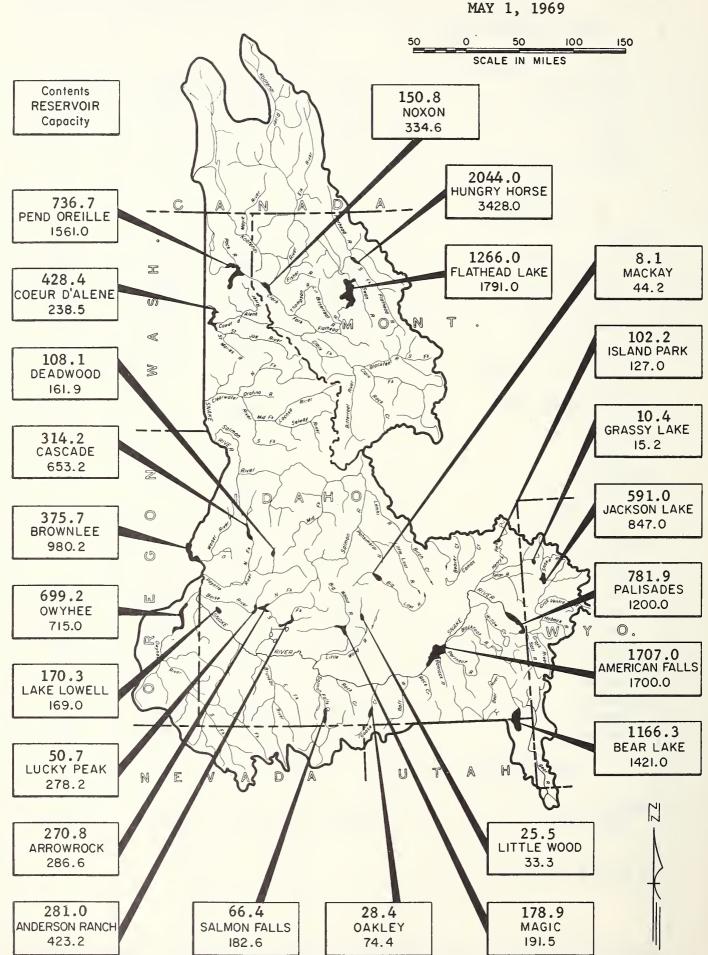


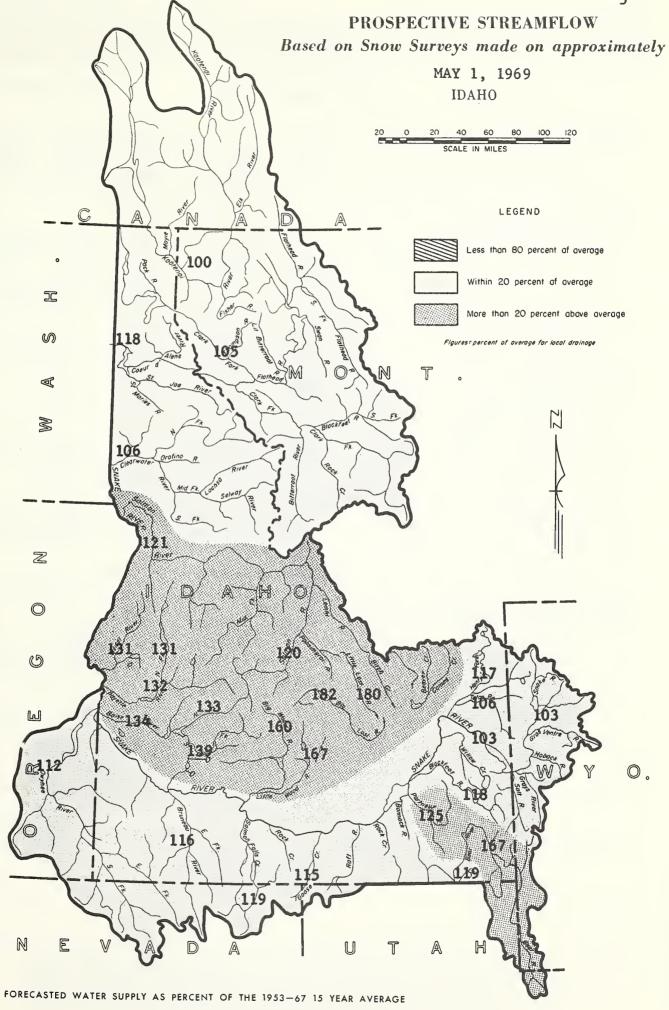
RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)			
	GARREE GALASIII	THIS YEAR	LAST YEAR	1953-67 AVERAGE	
UPPER COLUMBIA BASIN					
		:			
Clark Fork - Pend Oreille	2420.0	2011 0	0001.0	107/ 01	
Hungry Horse	3428.0	2044.0	2304.0	1974.0*	
Flathead	1791.0	1266.0	707.4	933.7	
Pend Oreille	1561.0	736.7	930.9	899.8	
Noxon	334.6	150.8	101.1	144.9*	
Spokane	000 5	,,,,	100		
Coeur d'Alene	238.5	428.4	127.0	300.0	
SNAKE BASIN					
Snake					
Jackson Lake	847.0	591.0	611.5	455.1	
Palisades	1200.0	781.9	1021.4	802.4*	
American Falls	1700.0	1707.0	1672.0	1664.3	
Island Park	127.0	102.2	133.9	133.1	
Grassy Lake	15.2	10.4	10.5	11.4	
Brownlee	980.2	375.7	568.5	515.2*	
Goose-Trapper Creeks	300.2	3/3.7	500.5	713.2	
Oakley	74.4	28.4	19.3	24.3	
Salmon Falls Creek					
Salmon Falls	182.6	66.4	31.7	46.9	
Big Lost					
Mackay	44.2	8.1	37.0	33.5	
Big Wood					
Magic	191.5	178.9	171.2	167.7	
Little Wood					
Little Wood	30.0	25.5	30.1	21.5*	
Fish Creek					
Carey Valley	14.4	14.4	~-		
Boise					
Anderson Ranch	423.2	281.0	311.7	284.4	
Arrowrock	286.6	270.8	166.7	230.7	
Lucky Peak	278.2	50.7	233.3	176.1*	
Lake Lowell (Deer Flat)	169.0	170.3	140.9	156.3	
Owyhee					
Owyhee	715.0	699.2	435.2	531.9	
Payette					
Cascade	653.2	314.2	369.9	327.8	
Deadwood	161.9	108.1	102.5	89.1	
GREAT BASIN			:		
Bear					
Bear Lake	1421.0	1166.3	1144.7	948.8	
* Period of Record					

RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)





STREAM and/or FORECAST POIN	Т	FORECAST THIS YEAR	FORECAST PERIOD	LAST YEAR	1953-1967 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
	UPF	ER COLUME	BIA BASIN			
KOOTENAI RIVER	(-1)	0400		7/01	0007	
Leonia	(at)	8400 7280	May-Sep	7481	8397	100
		5670	May-Jul May-Jun	6287 4772	7271 5662	100 100
PEND OREILLE RIVER						
Clark Fork River						
Whitehorse Rapids	(at)	12840	May-Sep	10684	12313	105
•		11600	May-Jul	9031	11112	105
		9700	May-Jun	7472	9278	105
Priest River						
Priest River $1/$	(nr)	860	May-Jul	546	721	119
SPOKANE RIVER						
Post Falls <u>2</u> /	(at)	2500	May-Sep	1318	2110	118
Coeur d'Alene River						
Cataldo	(nr)	967	May-Sep	471	820	118
		900	May-Jul	394	762	118
St. Joe River						
Calder	(at)	1200	May-Sep	767	1040	116
		1130	May-Jul	677	974	116
		SNAKE RIV	ER BASIN			
SNAKE RIVER - MAIN STEM						
Moran 3/	(at)	870	Apr-Sep	811	846	103
Heise 4/	(nr)	3500	May-Sep	3454	3410	103
Blackfoot 5/	(nr)	3660	May-Jul	3535	3521	104
Weiser	(at)	5800	May-Sep	3516	5002	116
Henrys Fork						
Ashton 6/	(nr)	600	May-Sep	555	513	117
Rexburg 7/	(nr)	1280	May-Sep	1251	1100	116
Teton River						
St. Anthony	(nr)	375	May-Sep	435	353	106
Blackfoot River						
Blackfoot		100	A C		1004	110
Reservoir Inflow		120	Apr-Sep		102*	118
*1948-1962 Average						

⁽c) Assuming normal meteorological conditions. 1/Observed flow corrected for storage in Priest Lake. 2/Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie canals. 3/Corrected for storage in Jackson Lake. 4/Corrected for storage in Jackson Lake, Palisades, Island Park, Henry's Lake, Grassy Lake and diversions between Heise and Blackfoot. 6/Corrected for storage in Henry's Lake and Island Park Reservoir. 1/Corrected for storage in Henry's Lake, Island Park, Grassy Lake and diversions between Ashton and Rexburg.

1,000	10. 11.7					
STREAM and/or FORECAST PO	INT	FORECAST THIS YEAR	FORECAST PERIOD	LAST YEAR	1953-1967 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Double out Discour						
Portneuf River	(-+)	70	Mary Can	EC :	56.0	100
Topaz	(at)	70	May-Sep	56	56.2	125
Oakley Reservoir Inflow	J	18	May-Sep	8.0	15.6	115
					-5.0	
Salmon Falls Creek						
San Jacinto	(nr)	55	May-Sep	23.3		119
		50	May-Jul	18.2	43.0	116
Process Princes						
Bruneau River	(nn)	165	May-Sep	91	142	116
Hot Springs	(nr)	105	may-sep	91	142	110
Little Lost River						
Howe	(nr)	55	May-Sep	38.5	30.6	180
Big Lost River		242		170	*06	***
Howell Ranch	(at)	340	May-Sep	172	186	182
24 1 1/		230	May-Jun	114	128	180
Mackay <u>1</u> /	(nr)	290	May-Sep	145	159	182
Big Wood River						
Hailey 2/	(at)	460	May-Sep	172	288	160
Magic Reservoir	()		,			
Inflow 3/		290	May-Jul	65	161	180
_						
<u>Little Wood River</u>						-
High Five Creek	(ab)	105	May-Sep	45	63	167
Boise River						
Twin Springs	(nr)	790	May-Sep	388	594	133
	(-1-)	720	May-Jul	328	542	133
Boise 4/	(nr)	1650	May-Sep	741	1230	134
	` '					
South Fork						
Anderson Dam <u>5</u> /	(at)	650	May-Sep	270	468	139
Orași de Pirres						
Owyhee River Gold Cr., Nev. 6/	(nr)	13	May-Jul	2	8	163
	(nr)	60	May-Jul	11	38	158
Owyhee, Nev. 6/	(111)	200	•	11	179	112
Lake Owyhee			May-Sep			
net inflow 7/		175	May-Jul		160	109
Jordan Creek						
Lone Tree Creek	(ab)	55	May-Jul	co eu	48.3*	114

*1955-1967 Average

⁽c) Assuming normal meteorological conditions. 1 Observed flow corrected for storage in Mackay Reservoir and diversion in Sharp Ditch. 2 Combined discharge of Big Wood River and Big Wood Slough Corrected for diversions. 3, Combined flow Big Wood River nr. Bellevue and Camas Creek nr. Blaine. 4 Corrected for storage in Arrowrock, Anderson Ranch and Lucky Peak. 5, Corrected for storage in Anderson Ranch Reservoir. 6/Corrected for storage in Wild Horse Reservoir. 7/From U.S.B.R. records of inflow.

STREAMPEUW PURECASTS (1,000 A	6. Ft. /					,
STREAM and/or FORECAST POI	NT	FORECAST THIS YEAR	FORECAST PERIOD	LAST YEAR	1953-1967 AVERAGE	THIS YEAR AS PERCENT OF AVERAGE
Payette River						
Horseshoe Bend 1/	(nr)	2000	May-Sep	998	1510	132
Banks 2/	(nr)	1080	May-Jul	490	816	132
North Fork						
Cascade 3/	(at)	600	May-Sep	317	458	131
Banks 3/	(nr)	760	May-Sep	377	574	132
Weiser River						
Weiser ab. Crane Creek <u>4</u> /		350	May-Sep	161	267	131
Salmon River						
Whitebird	(at)	7500	May-Sep	5026	6190	121
Challis	(nr)	990	May-Sep	6011	824	120
		850	May-Jul	498	710	120
Clearwater River						
Spalding	(at)	7200	May-Sep	5678	6824	106
		GREAT BA	SIN			
BEAR RIVER						
Harer	(at)	260	May-Sep	172	.54	167
Montpelier Creek						
Montpelier	(nr)	12	May-Sep	6.4	8.7	138
Cub River						
Preston	(nr)	52	May-Sep	41.0	43.7*	119

^{* 1956-1967} Average.

VALLEY PRECIPITATION 1/

Division Averages and Departures

In Inches

DRAINAGE	April	- 1969	Nov. 68 t	hru March 69
DIVISIONS	Observed	Departure <u>2</u> /	Observed	Departure 2/
Upper Snake	1.07	-0.72	12.26	+2.23
Snake River Plain	0.41	-0.58	5.51	+1.20
Clark Fork	0.64	-0.44	5.41	+0.94
Flathead	1.53	-0.20	10.17	+0.09
Salmon-Boise-Payette	0.98	-0.73	14.20	+3.07
Clearwater	3.23	+0.41	14.14	+0.53
Pend Oreille-Spokane	2.88	+0.55	20.28	+2.03
Kootenai	2.28	+0.72	14.35	+0.23
Owyhee-Malheur	0.71	-0.16	7.50	+2.32

^{1/} Preliminary analysis by U. S. Weather Bureau from data furnished by Meterological Service of Canada and U. S. Weather Bureau.

^{2/} Departure from 15-year (1953-67) drainage division average.



SNOW CURRENT INFORMATION PAST RECORD WATER CONTENT (Inches) DRAINAGE BASIN and SNOW COURSE WATER CONTENT (Inches) DATE OF SNOW DEPTH LAST YEAR AVERAGE b ELEVATION SURVEY (Inches) NO.

	UPP	ER COLU	MBIA R	IVER BAS	IN		
KOOTENAI RIVER							
Smith Creek	16A1	4800	4/30	96	46.7	44.9	49.4
PEND OREILLE - PRIEST R	IVER						
Benton Meadow Benton Spring Schweitzer Bowl Schweitzer Ridge	16A2 16A3 16A6 16A5	2344 4900 4500 6100	5/1 4/29 4/30 4/30	0 37 61 150	0.0 16.2 25.2 67.0		0.0 17.1
SPOKANE RIVER							
Copper Ridge #Forty-nine Meadows Fourth of July Summit Granite Peak Lookout #Lost Lake Lower Sands Creek Medicine Ridge Outlaw Creek Sherwin	16B2 15B3 16B3 15B13 15B2 15B14 16B1 15B4 15B12 16C1	4800 5000 3100 6000 5250 6000 3400 6150 3750 3200	5/1 5/3 5/1 5/3 5/1 5/3 5/2 5/3 5/3 4/29	60 40 0 99 79 148 42 97 0	29.8 20.8 0.0 46.1 37.4 73.0 18.7 45.5 0.0 4.2	15.3 21.7 0.0 47.8 28.2 56.4 8.2 52.0 3.0	27.8 30.6* 36.7 14.6 8.0*
	LO	WER SNA	KE RIV	ER BASIN	-		
PALOUSE RIVER							
Crumarine Creek East Twin Howard Creek Moscow Mountain West Twin	16 C6 16 C3 16 C5 16 C2 16 C4	3340 4050 3450 4400 4250	5/1 5/1 5/1 5/1 5/1	T 2 T 28 T	T 0.5 T 12.1 T	0.0 0.0 0.0 T	0.0* 2.1* 0.0* 11.6* 0.0*
CLEARWATER RIVER							
Buck Meadows Cayuse Airstrip Coolwater Mountain Coolwater Mountain (R) Coolwater Mountain (SP) Cottonwood Butte Crater Meadows Crooked Fork Culdesac Elk Butte Fish Lake Airstrip	15D5 15C3 15C7 15C7 15C7 16C16 15C9 14C10 15B19 16C15 15C2	5600 3700 6200 6200 6200 5140 6100 3800 3050 5550 5000	4/28 4/27 4/27 4/27 4/28 4/27 4/28 5/3 5/3 4/27	0	23.4 0.0 27.1 20.1 19.4 4.8 44.2 0.0 0.0 28.3 36.8	29.7 0.0 29.9 23.9 2.7 48.5 0.0 0.0 23.9 38.0	0.9* 30.6* 47.2* 35.8* 42.2*

⁽b) 1953-67, 15 year period. *Not located directly on this drainage. *Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

ii APPENDIX

SNOW			CUI	RRENT INFOR	MATION	PAST RE	CORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTE	
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (inches)		AVERAGE 6
Forty-nine Meadows	15B3	5000	5/3	40	20.8	21.7	30.6*
Goat Lake	14C9	6600	4/27	104	51.6	58.2	
#Granite Peak	15B13	6000	5/3	99	46.1	47.8	
Hemlock Butte	16C6	5500	4/27	96	45.1	45.6	53.9*
Hemlock Butte (R)	16C6	5500	4/27		48.8	42.5	
#Hoodoo Basin Mont.	15C8	6000	5/1	103	51.2	47.7	
#Hoodoo Creek Mont.	15C1	5900	5/1	103	49.2	43.0	52.0*
Lolo Pass	14C5	5230	4/28	47	23.7	28.0	32.7*
Lost Lake	15B14	6000	5/3	148	73.0	56.4	62.7*
Lower Snowhaven	16D7	5250	4/28	20	9.7	6.8	
#Medicine Ridge	15B4	6150	5/3	97	45.5	52.0	
Mountain Meadows	15D6	6300	4/28	37	17.2	27.5	
#Nez Perce Pass Mont.	14D1	6575	4/28	20	9.6	15.6	13.9
Orogrande Mountain	15 D4	7800	4/27	101	43.2	50.8	48.0*
Orogrande Mountain (R)	15D4	7800	4/27		42.1	45.4	
Pierce Ranger Station	15 C5	3170	5/2	0	0.0	0.0	1.9*
Powell Ranger Station	14C6	4230	4/28	0	0.0	0.0	
Savage Pass	14C4	6600	4/27	50	24.3	28.6	
Shanghai Summit	15C4	4600	5/3	37	18.1	14.6	24.0*
Upper Snowhaven	16 D4	5600	4/28	31	14.8	10.4	
SALMON RIVER							
Big Creek Summit	15 E2	6600	4/28	82	39.9	26.8	36.1
Borah (A)	13 E8	8250	5/5	0	0.0	2.6	
#Boulder Creek	16D1	5500	4/28	16	7.8	3.8	15.9*
Brundage Mountain	16D6	7560	4/28	111	53.8	44.9	
Chapman Creek	16D2	4215	4/28	0	0.0	0.0	0.4*
Doublespring Pass (A)	13E25	8400	5/5	6	2.4	3.4	
#Galena Summit	14F12	8795	4/29	69	29.4	19.2	24.5
#Gibbons Pass Mont.	13D2				21.6	22.8	23.1
Johns Creek	16D3	3805	4/28	0	0.0	0.0	0.0*
Keystone (A)	14E6	7700	-	0	0.0		
Leatherman Pass (A)		9800	5/5	65	27.4	19.9	
Mill Creek Summit	14E1	8870	4/30		28.1	18.7	
Moose Creek	13D16	6200	4/29	29	10.9	15.7	12.3*
Morgan Creek	14 E4	7580	4/29	23	10.5	6.9	14.2*
#Rock Flat Summit	16E1	5200	4/28	34	16.0	14.8	15.7*
Twin Peaks (A)	14E3	10300	5/5	64	30.0	23.4	
Vienna Mine (A)	14F4	8900	4/27	81	34.5	26.5	38.5*
Whitebird Summit	16D5	4390	4/28	0	0.0	0.0	0.9*
Lemhi River							
Above Gilmore (A)	13 E19	8200	5/5	24	9.6	9.5	
Aspen-Hall Pass (A)	13 E2 1	8110	5/5	27	10.8	12.1	
Copes Camp (A)	13 E1 7			T	T	5.6	
Gertson Creek (A)	13D17			0	0.0	6.0	
Hall Creek (A)	13E2O	7560	5/5	0	0.0	5.2	

⁽b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW		1	CUF	RRENT INFOR	MATION	PAST R	ECORD
DRAINAGE BASIN and SNO	W COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT, (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	(Inches)	LAST YEAR	AVERAGE 6
Meadow Lake (A)	13E18	9100	5/5	49	20.6	18.7	
Schwartz Lake (A)	13E16	8500	5/5	45	18.9	13.6	

SOIL MOISTURE		PROFILE	(inches)		SOIL MOISTU	RE (Inches)	
STATION		DEPTH	CAPACITY	DATE	THIS	LAST	2 YEARS
NAME	ELEVATION				YEAR	YEAR	AGO
SPOKANE RIVER							
Fourth of July Summit Lookout	3100 5250	48 48	11.6 11.0	5/1 5/1	10.3	10.2	10.2
CLEARWATER RIVER							
Brown Midway	3100 2200	30 36	6.7 6.1	3/27 3/27	5.8 5.0	5.6 5.0	5.6 5.1
SALMON RIVER							
Mill Creek Summit	8870	48	8.4	4/30	6.8	7.1	3.0
<u>Lemhi River</u>							
Above Gilmore Meadow Lake	8200 9100	60 48	5.4 4.4	3/28 3/28	4.2	3.2 ^a 2.5 ^a	1.8 ^a 1.6 ^a
a April Measurement							

⁽b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

iv APPENDIX

SNOW		1	CUF	RENT INFOR	MATION	PAST R	ECORD
DRAINAGE BASIN ond SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	AVERAGE 6

MIDDLE SNAKE RIVER BASIN - NORTHSIDE

HID	DILL SIK	KE KIVE	IN DASIN	- NORTH	SIDE		
LITTLE LOST RIVER					`		
Fairview Guard Sta. Lost Garfield Moonshine Sawmill Canyon Swauger Lake (A)	13E5 13E3 13E6 13E4 13E9	6750 6600 7450 6900 9050	5/1 5/1 5/1 5/1 5/5	0 0 25 T 13	0.0 0.0 9.4 T 5.2	0.0 0.0 8.2 0.0	
BIG LOST RIVER							
#Doublespring Pass (A) Iron Bog Leadbelt #Leatherman Pass (A) Lost-Wood Divide (A) Sage Creek (A) White Knob	13E25 13F11 13F12 13E24 14F3 14E5 13F1	8400 7650 6800 9800 7900 7800 7700	5/5 4/28 4/28 5/5 4/27 5/5 5/1	6 24 14 65 59 21	2.4 12.0 5.8 27.4 25.1 8.4 8.8	3.4 19.9 7.8 0.0	 7.6*
LITTLE WOOD RIVER							
Garfield Rgr. Sta. Muldoon Porcupine (A) Swede Peak	13F4 13F5 14F14 13F9	6554 6300 8350 7500	4/28 4/28 4/27 4/28	11 0 51 48	5.0 0.0 24.6 23.2	0.0 0.0 9.9 9.5	2.2* 0.1* 14.6*
BIG WOOD RIVER							
#Couch Summit Dollarhide Summit (A) Galena Galena Summit Graham Ranch #Lost-Wood Divide (A) Mount Baldy #Porcupine (A) Soldier Rgr. Sta. #Vienna Mine (A)	14F10 14F8 14F1 14F12 14F5 14F3 14F9 14F14 14F11	6950 8620 7300 8795 6200 7900 9000 8350 6100 8900	4/29 4/27 4/29 4/29 4/30 4/27 4/30 4/27 4/29 4/27	39 45 35 69 20 59 72 51 T	19.7 22.3 15.8 29.4 8.8 25.1 30.3 24.6 T 34.5	4.9 16.6 8.2 19.2 1.2 7.8 14.3 9.9 0.0 26.5	11.4* 14.6 24.5 21.8 38.5*
BOISE RIVER							
Atlanta Summit Atlanta Summit (SP) Bad Bear #Bogus Basin Bogus Basin Road Couch Summit #Dollarhide Smt. (A) Moores Creek Summit	15F4 15F4 15F2 16F2 16F4 14F10 14F8 15F1	7500 7500 5500 6120 5360 6950 8620 6100	5/1 5/1 4/30 4/28 4/28 4/29 4/27 4/30	84 0 48 0 39 45 63	39.9 38.4 0.0 23.2 0.0 19.7 22.3 31.2	24.2 23.0 0.0 9.8 0.0 4.9 16.6 16.2	35.4* 4.1* 21.0 0.0* 11.4* 29.7

⁽b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW		1	CUI	RRENT INFOR	PAST R	PAST RECORD		
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)	
NAME	NO,	ELEVATION	SURVEY	(Inches)	CONTENT (inches)	LAST YEAR	AVERAGE 6	
#Soldier Rgr. Sta.	14F11	6100	4/29	T	\mathbf{T}	0.0		
Trinity Mountain	15F5	7780	5/2	88	47.7	26.9	42.9*	
Trinity Mountain (SP)	15F5	7780	5/2		48.6	30.0	- co	
#Vienna Mine (A)	14F4	8900	4/27	81	34.5	26.5	38.5*	
PAYETTE RIVER								
#Big Creek Summit	15 E2	6600	4/28	82	39.9	26.8	36.1	
Bogus Basin	16F2	6120	4/28	48	23.2	9.8	21.0	
#Brundage Mountain	16D6	7560	4/28	111	53.8	44.9		
Cozy Cove	15E8	5900	4/27	23	11.1	5.7	8.6	
Crawford Rgr. Sta.	15E3	4800	4/28	0	0.0	0.0	0.0*	
Deadwood Dam	15E7	5290	4/27	24	10.5	5.8	11.2	
Rock Flat Summit	16E1	5200	4/28	34	16.0	14.8	15.7*	
WEISER RIVER								
Boulder Creek	16D1	5500	4/28	16	7.8	3.8	15.9*	

SOIL MOISTURE		PROFILE	ILE (Inches) SOIL MOISTURE (Inches)				
STATION NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
LITTLE LOST RIVER							
Fairview Guard Station Wet Creek Summit	5850 8175	42 48	7.6 17.1		8.5 16.4	8.5 ^a 14.9	
BIG WOOD RIVER							
Galena Galena Summit	7300 8795	48 48	10.1 5.8	4/29 4/29	9.8 4.9	8.5	6.2 1.5
BOISE RIVER				ь			
Bad Bear Bogus Basin Bogus Basin Road a April Measurement	5500 6120 4830	72 48 48	6.3 13.1 7.1	4/30 4/28 4/28	5.6 12.0 5.7	5.5 11.2 5.8	10.2 5.8

⁽b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

Vi APPENDIX

SNOW			CUF	RRENT INFORI	MATION	PAST RE	CORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONTE	NT (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	AVERAGE 6
MID	DLE SNA	KE RIV	ER BASI	N - SOUT	THSIDE		
Howell Canyon	13G1	8000	4/25	32	14.4	13.2	
GOOSE CREEK							
Badger Gulch	14G3	6660	4/28	13	5.4	T	· ·
SALMON FALLS CREEK							
#Bear Creek (A)	15H1	7800	4/28	46	20.3	15.2	19.4*
Cedar Creek (A)	14G5	7000	4/28	0	0.0	0.0	2.1*
Deadline	14G4	6900	4/28	23	11.5	13.8	18.1*
Goat Creek (A)	15H13	8800	4/28	36	15.9	16.4	18.2*
#Hummingbird Springs(A)	15H15	8945	4/28	75	30.0	20.5	22.8*
Magic Mountain	14G2	6700	4/28	24	11.8	10.3	14.5*
#Pole Creek R. S.	15H14	8330	4/29	49	21.6	19.7	21.6*
Red Point (A)	15H18	7940	4/28	0	0.0	0.0	9.0*
Wilson Creek (A)	15G2	7500	4/28	21	9.3	0.0	
BRUNEAU RIVER							
Bear Creek (A)	15H1	7800	4/28	46	20.3	15.2	19.4*
Hummingbird Springs (A)		8945	4/28	75	30.0	20.5	22.8*
Pole Creek R. S.	15H14	8330	4/29	49	21.6	19.7	21.6*
#Seventy-six Creek (A)	15H3	7100	4/28	20	8.8	0.0	
		,	., ==				
OWYHEE RIVER							
#Bear Creek (A)	15H1	7800	4/28	46	20.3	15.2	19.4*
#Seventy-six Creek (A)	15H3	7100	4/28	20	8.8	0.0	
Silver City	16F3	6400	4/28	24	11.2	T	6.7*
South Mountain	16G1	6340	4/30	11	5.8	0.0	

⁽b) 1953-67, 15 year period. *Not located directly on this drainage. *Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SOIL MOISTURE		PROFILE	(Inches)	SOIL MOISTURE (Inches)				
STATION NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO	
RAFT RIVER							<u> </u>	
Conner Pass Howell Canyon Sublett	5700 8000 6000	36 48 36	9.8 11.5 7.0	4/25 4/25 4/1	8.7 10.9 7.8	 7.8 7.5 ^a	8.5 5.7 6.0	
GOOSE CREEK								
Badger Gulch	6660	36	7.0	4/28	6.5	5.8	5.6	
SALMON FALLS CREEK								
Deadline Patrick Ranch Pole Creek R. S.	6900 5720 8330	36 36 48	7.4 7.7 9.7	1	7.7 6.3 8.0	7.9 6.7 6.6	7.9 6.0 4.1	
BRUNEAU RIVER								
Bear Creek	7800	72	16.9	3/26	15.2	10.8ª	10.1 ^e	
OWYHEE RIVER					!			
Mud Flat	5500	48	12.8	3/26	13.8	14.4 ^a	14.4 ^ε	
a April Measurement								

SNOW			CUR	RENT INFOR		PAST R	ECORD
DRAINAGE BASIN ond SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (Inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	AVERAGE 6

UPPER SNAKE RIVER BASIN

CAMAS-BEAVER CREEKS							
Camp Creek Kilgore	12E3 11E12	6800 6200	5/2 5/2	25 24	11.6 15.9		
HENRYS FORK RIVER							
Big Springs Grassy Lake Wyo. Island Park Sawtelle Mountain Targhee Pass Valley View	11E9 10E15 11E10 11E32 11E34 11E8	6500 7230 6315 8715 7000 6500	4/29 5/1 4/29 4/29 4/29 4/29	30 60 23 91 39 29	14.1 27.2 9.4 44.8 18.1 13.8	12.7 33.6 5.5 31.7 12.1	17.0* 32.6 9.7* 13.0*
TETON RIVER							
Freds Mountain Pine Creek Pass State Line	10 F22 11 F2 11 F1	8000 6750 6400	5/1 5/1 5/1	43 18 10	20.2 8.3 4.1	13.4 0.0	11.0* 8.5

SOIL MOISTURE		PROFILE	SOIL MOISTURE (Inches)				
STATION NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
HENRYS FORK RIVER							
Island Park Valley View	6315 6500	48 48	9.9 13.3	4/29 4/29	9.9	10.3 9.7	10.0 9.7
TETON RIVER							
Pine Creek Pass State Line Teton Pass	6750 6400 8500	48 48 48	13.3 14.8 10.5	5/1	14.9 15.2 11.5	14.8 14.8 9.2	7.6 10.8 8.5 ^m
PORTNEUF RIVER							
Lower Dempsey Lower Pebble Pebble Creek m March Measurement a April Measurement	5210 5800 6550	48 36 48	18.7 7.6 7.2	3/26 3/27 3/27	20.2 8.5 6.5	21.0 ^m 8.5 ^a 5.1 ^a	6.0 ^a

⁽b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW			CUF	RENT INFOR	MATION	PAST R	ECORD
DRAINAGE BASIN and SNOW	COURSE		DATE OF	SNOW DEPTH	WATER	WATER CONT	ENT (inches)
NAME	NO.	ELEVATION	SURVEY	(Inches)	CONTENT (Inches)	LAST YEAR	AVERAGE b

		GREA'	T BASIN				
EAR RIVER							
migrant Summit	11G6	7350	4/29	48	24.4	25.4	21.5*
Montpelier Creek							

BEAR RIVER

Emigrant Summit

Cub River

Giveout	11G16	6840	5/1	0	0.0	0.0	
Little Beaver	11G20	6970	5/1	10	4.7	4.9	
Lower Home Canyon	11G27	7500	4/30	17	7.8		
Montpelier Creek	11G18	6570	5/1	0	0.0	0.0	
Upper Home Canyon	11G26	8500	4/30	48	23.7		
Whiskey Flat	11G21	6985	5/1	0	0.0	0.0	

Mink Creek							
Christensen Ranch	11G11	5600	4/29	0	0.0	0.0	0.0*
#Emigrant Summit	11G6	7350	4/29	48	24.4	25.4	21.5*
Liberty Spring	11G13	8600	4/29	85	41.0	38.9	39.4*
Strawberry Creek	11G9	5800	4/29	0	0.0	4.4	2.1*
Strawberry Mink Divide	11G10	6800	4/29	29	13.4	18.1	14.1*

Cub River R. S. Willow Flat			4/30				
willow riat	11G4	9100	4/30	0	0.0	1.4	3.3*

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS	LAST	2 YEARS
NAME	ELEVATION				YEAR	YEAR	AGO
BEAR RIVER							
Emigrant Summit	7350	36	8.2	4/29	6.4	4.0	4.1
Strawberry Creek	5800	48	12.7	4/29	12.6	12.7	12.8
Montpelier Creek							
Giveout Pass	7025	36	9.4	5/1	7.7	7.6	7.6

⁽b) 1953-67, 15 year period. *Not located directly on this drainage. *Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



Agencies and Organizations Cooperating in Idaho Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests, and .

Water Resources, British Columbia

Department of Resources and Development,

Water Resources Division

States:

Idaho State Reclamation Engineer
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

- U. S. Army Engineers
- U. S. Department of Agriculture Forest Service Agricultural Research Service
- U. S. Department of Commerce
 Environmental Sciences Service Administration,
 Weather Bureau
- U. S. Department of the Interior
 Bonneville Power Administration
 Bureau of Reclamation
 Fish and Wildlife Service
 Water Resources Division, Geological Survey
 Indian Service
 National Park Service
 Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company Washington Water Power Company Idaho Power Company Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Boise Project Board of Control
Little Wood River Irrigation District
Jordan Valley Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Twin Lakes Irrigation Company
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control

PRIVATE CORPORATIONS

Amalgamated Sugar Company

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P.O. BCX 38

BOISE, IDAHO 83707

OFFICIAL BUSINESS

FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"The Conservation of Water begins with the Snow Survey"

POSTAGE AND FEES PAID U. S. DEPARTMENT OF AGRICULTURE

USDA MATIDHAS NGRICUETURAL LIBRARY CURRENT SERIAL RECORD WASHINGLOW, D.C. 20250